

Amendments to the Claims:

1. (Canceled)
2. (Currently Amended) The vapor phase growth apparatus as claimed in claim 16, wherein the upper lining component is configured so that the degree of overlapping, in a vertical direction that is normal to the horizontal direction, over the top surface of the bank component forming the gas introducing gap and the lower surface of the upper lining component forming the gas introducing gap is reduced as distanced from the horizontal standard line in the width-wise direction, ~~or remained constant at any position.~~
3. (Previously Presented) The vapor phase growth apparatus as claimed in claim 16, wherein the upper lining component is configured so that the inner periphery of the lower surface of the upper lining component is located on an upstream side, in the direction of flow of the source gas.
4. (Previously Presented) The vapor phase growth apparatus as claimed in claim 16, wherein the apparatus is configured so that, on the exit side of the gas introducing gap, center of an arc drawn by the inner periphery of the top surface of the bank component coincides with the axis of rotation of the susceptor, and so that the center of an arc drawn by the inner periphery of the lower surface of the upper lining component is set on the downstream side, in the direction of flow of the source gas, and

so that the radius of the arc drawn by the inner periphery of the lower surface of the upper lining component is set larger than the radius of the arc drawn by the inner periphery of the top surface of the bank component.
5. (Canceled)
6. (Previously Presented) The vapor phase growth apparatus as claimed in claim 16, further comprising an evacuation system keeping the inner space of the reaction vessel under a reduced pressure that is lower than the atmospheric pressure.

7-9. (Canceled)

10. (Previously Presented) The vapor phase growth apparatus as claimed in claim 17, further comprising an evacuation system keeping the inner space of the reaction vessel under a reduced pressure that is lower than the atmospheric pressure.

11-15. (Canceled)

16. (Currently Amended) A vapor phase growth apparatus that allows vapor phase growth of a silicon single crystal film on a main surface of a silicon single crystal substrate, comprising:

a reaction vessel that comprises:

a gas introducing port formed on a first end side in a horizontal direction that is parallel to a horizontal standard line through which a source gas for forming the silicon single crystal film is introduced into the reaction vessel; and

a gas discharging port on a second end side in the horizontal direction through which the source gas is discharged out of the reaction vessel;

a disc-formed susceptor rotated about an axis in an inner space of the reaction vessel on which the silicon single crystal substrate is disposed in a near-horizontally rotating manner in the inner space of the reaction vessel;

a bank component that surrounds the susceptor and that is positioned so that a top surface of the bank component aligns with a top surface of the susceptor;

an upper lining component that overlaps the bank component; and

a gas introducing gap formed by the bank component and the upper lining component that is configured to communicate with the reaction vessel, a length of the gas introducing gap being shortened in a continuous or step-wise manner in a direction that is parallel to the horizontal standard line as a distance from the horizontal standard line increases in a width-wise direction, ~~or remains constant at any position,~~

wherein the vapor growth apparatus is configured (1) to allow the source gas to flow along the main surface of the silicon single crystal substrate, and (2) to open the gas introducing port such that the gas introducing port opposes an outer peripheral surface of the bank component so that the source gas supplied through the gas introducing port collides against the outer peripheral surface of the bank component, climbs up onto the top surface of the bank component, and flows along the main surface of the silicon single crystal substrate positioned on the susceptor,

the horizontal standard line is a virtual center line along a direction of flow of the source gas that extends from the first end side of the reaction vessel to the second end side of the reaction vessel, and is normal to the axis of rotation of the susceptor, and

the width-wise direction is a direction that is normal to both the axis of rotation of the susceptor and the horizontal standard line.

17. (Currently Amended) A vapor phase growth apparatus that allows vapor phase growth of a silicon single crystal film on a main surface of a silicon single crystal substrate, comprising:

a reaction vessel that comprises:

a gas introducing port formed on a first end side in a horizontal direction that is parallel to a horizontal standard line through which a source gas for forming the silicon single crystal film is introduced into the reaction vessel; and

a gas discharging port on a second end side in the horizontal direction through which the source gas is discharged out of the reaction vessel;

a disc-formed susceptor rotated about an axis in an inner space of the reaction vessel on which the silicon single crystal substrate is disposed in a near-horizontally rotating manner in the inner space of the reaction vessel;

a bank component that surrounds the susceptor and is positioned so that a top surface of the bank component aligns with a top surface of the susceptor; ~~and;~~

an upper lining component that overlaps the bank component; and

a gas introducing gap that communicates with the reaction vessel, the reaction vessel being formed by the bank component and the upper lining component,

wherein the vapor growth apparatus is configured (1) to allow the source gas to flow along the main surface of the silicon single crystal substrate, and (2) to open the gas introducing port such that the gas introducing port opposes an outer peripheral surface of the bank component so that the source gas supplied through the gas introducing port collides against the outer peripheral surface of the bank component, climbs up onto the top surface of the bank component, and flows along the main surface of the silicon single crystal substrate positioned on the susceptor,

the vapor phase growth apparatus is configured so that an inner periphery of a lower surface of the upper lining component is located on an upstream side, in the direction of flow of the source gas,

on an exit side of the gas introducing gap, the center of an arc drawn by the inner periphery of the top surface of the bank component coincides with the axis of rotation of the susceptor, and the center of an arc drawn by the inner periphery of the lower surface of the upper lining component is set on a downstream side, in the direction of flow of the source gas rather than on the axis of rotation of the susceptor, and

~~the radius of the arc drawn by the inner periphery of the lower surface of the upper lining component is set larger than the radius of the arc drawn by the inner periphery of the top surface of the bank component~~the gas introducing gap gradually decreases as distanced from the horizontal standard line, and

the horizontal standard line is a virtual center line along a direction of flow of the source gas that extends from the first end side of the reaction vessel to the second end side of the reaction vessel, and is normal to the axis of rotation of the susceptor.